Introduction to Watershed-Based Plans

Purpose of Watershed Approach

Use “Thinking Outside the Box” approach (Think outside of reservation boundaries instead of just inside the reservation).

To address NPS pollution that affects the overall watershed to show environmental results.

Remember NPS pollution transcends almost all boundaries such as cultural, political, financial, etc.

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"Thinking Outside the Box" Approach

For example: A creek in a watershed can go through multiple types of land:

- Starts at a spring in the mountains
- Flows down into agricultural fields
- Through a golf course
- Then through your lands...

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A *Watershed Approach* helps to…

- Encourage sound science
- Facilitate communication and partnerships
- Provide means of cost-effective management
- Focus on environmental results

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Things to consider with watershed approach

- We have problems
  - Polluted waters
  - Cultural disconnects
  - Limited authority
  - Few resources
- We have solutions
  - Interested people
  - Improving science and technology
  - Good relationships among public and private sectors

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6 Steps to Watershed-Based Planning

- Characterize the watershed to identify problems.
- Build partnerships.
- Set goals and identify solutions.
- Design an implementation program.
- Implement the watershed plan.
- Measure progress and make adjustments.

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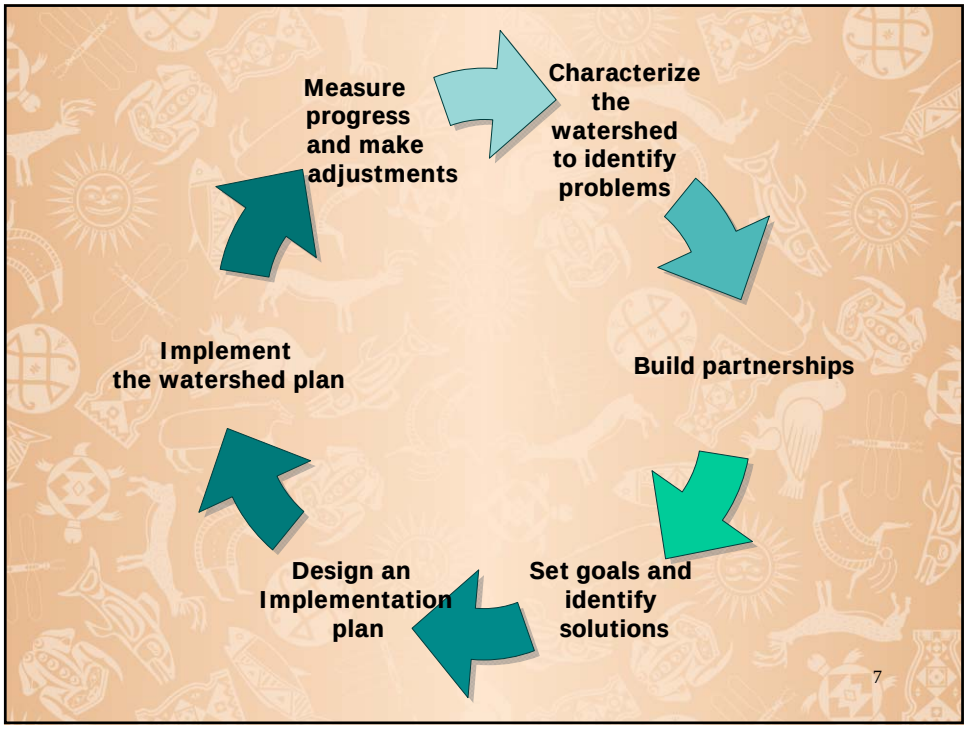

STEP 1: Characterize the watershed to identify problems

- What are the problems/concerns in the watershed?
- What do you think caused the problems?
- How can we assess current conditions?

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Types of Data for Watershed Characterization

- Physical and Natural Features
  - Watershed boundaries
  - Hydrology
  - Topography
  - Soils
  - Climate
  - Habitat
  - Wildlife
- Land Use and Population Characteristics
  - Land use and land cover
  - Existing management practices
  - Demographics
- Waterbody Conditions
  - Water Quality Standards
  - 305(b) Report
  - Annual Water Quality Assessment Report
- Pollutant Sources
  - Point sources
  - Nonpoint sources
- Waterbody Monitoring Data
  - Water quality data from CWA 106 program (pre-project monitoring)
  - Flow data
  - Biological data

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Use your data to characterize the watershed

- Identify key NPS pollutants/water quality stressors and its sources
- Identify water quality monitoring/assessment results (data trends) of those sources

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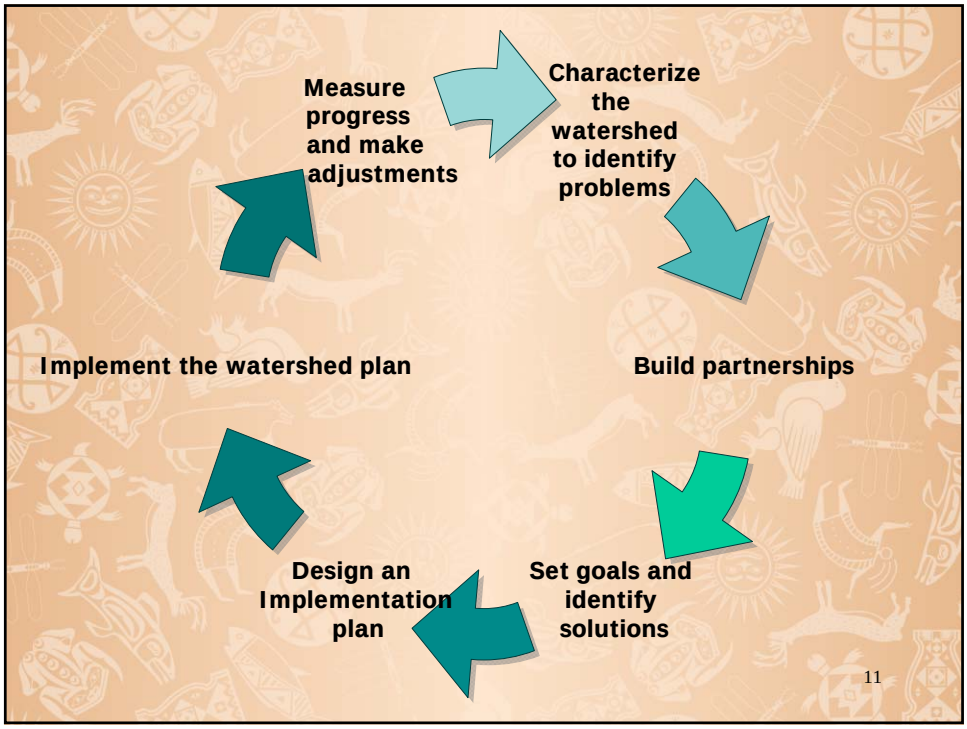

Step 2: Build Partnerships

- Identify stakeholders
- Identify common issues of concern
- Identify scope of effort and planning area
- Set preliminary goals
- Conduct outreach to stakeholders

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What is a stakeholder?

- A group or individual who:
  - Has the responsibility for implementing the decision.
  - Is affected by the decision.
  - Has the ability to impede or assist in implementing the decision.

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Why are stakeholders important to the process?

- Ensures that concerns are factored into the decisions made
- Shares the responsibility of the decision
- Enables partnerships to be formed to combine financial resources
- Shares implementation of the decision
- Establishes a framework for planning and conducting management activities
- Enables a discussion about effective and ineffective activities that have occurred within the watershed

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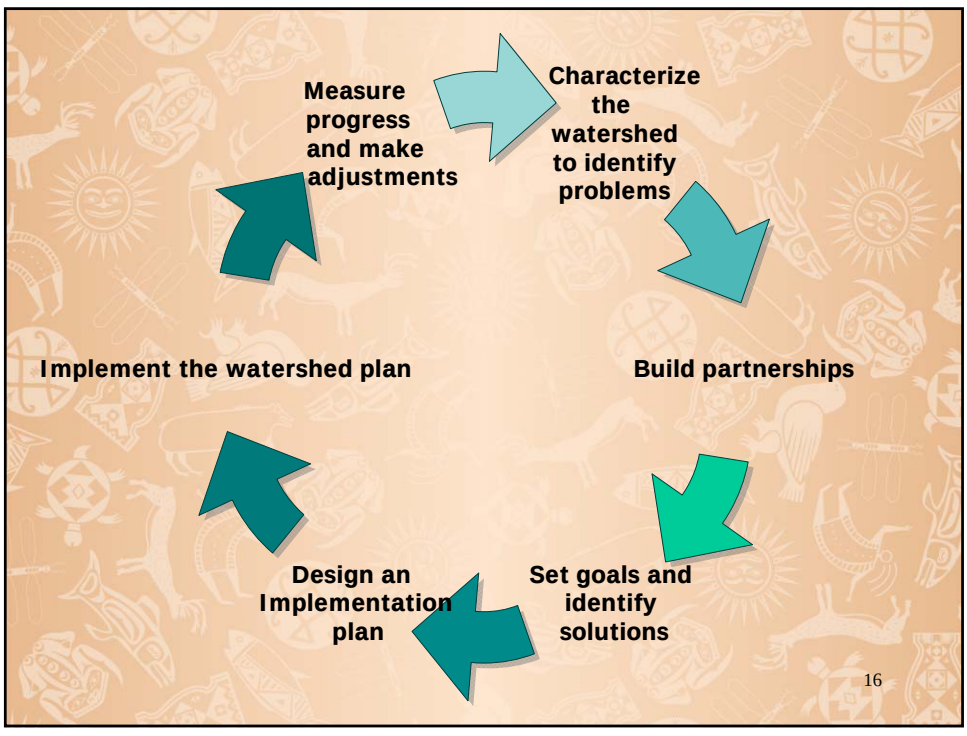
For best results, coordinate the watershed planning effort with other agencies within the tribe; federal agencies, state agencies, and local government agencies within the watershed; and nearby private landowners.



Step 3: Set Goals and Identify Solutions

- What would you like to see for your watershed? (Goals)
- How would you go about achieving it? (Solutions)

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First, identify management measures and best management practices to be implemented to lead to water quality improvement to be achieved.

Select the most appropriate BMPs

- Look at what worked and what has not
- Research effectiveness
- Consider costs/benefits
- Site access (ie., property ownership?)
- Look for added benefits
- Use a combination of techniques
- Focus efforts on critical areas; use more or better BMPs there

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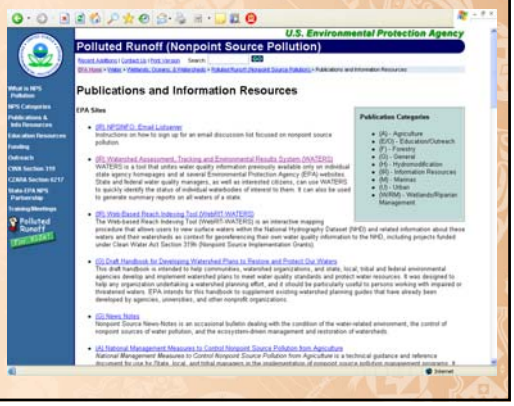
EPA Guidance on BMPs for nonpoint sources

www.epa.gov/owow/nps/categories.html

- BMP guidance documents on:
  - Agriculture
  - Forestry
  - Urban areas
  - Marinas
  - Hydromodification
  - Wetlands
  - Coastal protection



Identify where and how the Management Measures will be implemented

- Importance of waterbody
  - Drinking water source, cultural, recreational
- Magnitude of impairment(s)
  - Level of effort needed to address; public interest/attention
- Existing impacts (stressors and sources)
  - Magnitude, spatial variation, clustering
- Ability of BMPs to reduce impacts
  - Sure thing or a shot in the dark?
- Feasibility of implementation
  - Willing partners? Public support?
- Additional benefits
  - Recreational enhancements, demonstration

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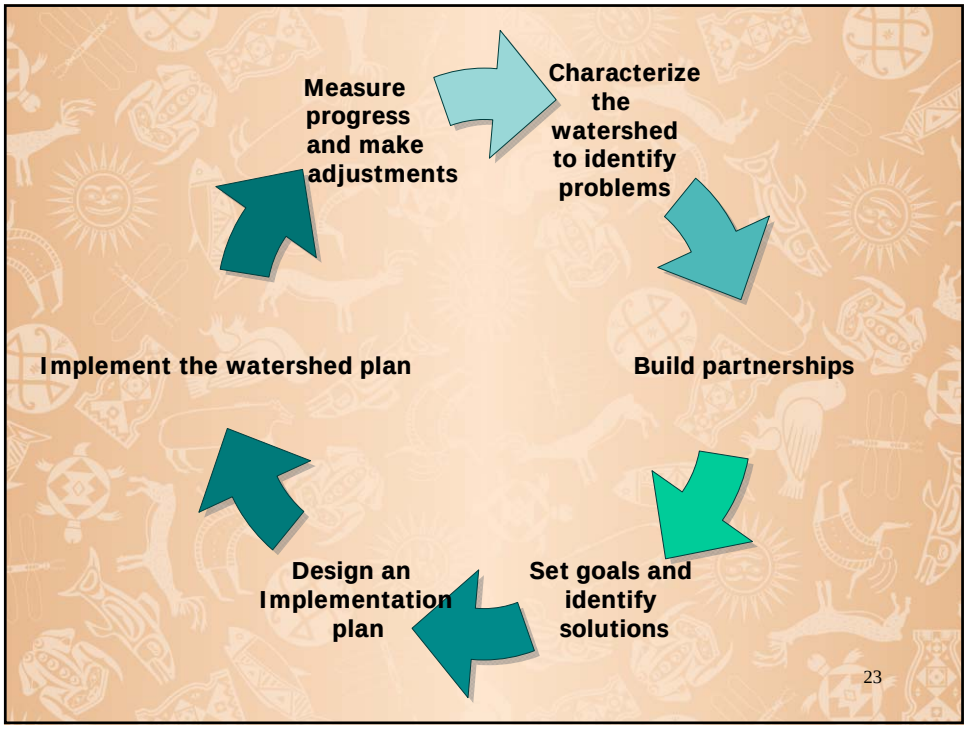
Identify water quality improvements to be expected from Management Measures implementation



Step 4: Design an Implementation Plan

- Identify a public outreach, education, and involvement plan.*
- Identify funding sources for management measures and technical assistance.*
- Identify project schedule.
- Identify estimated costs.

*To be discussed further later this afternoon.

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Develop a Reasonably Expeditious Project Schedule

- Who is going to do something?
- What are they going to do?
- Where will they do it?
- When will they do it?
- How will they do it?

- Lots of details for the short term
- Less details for long-term projects

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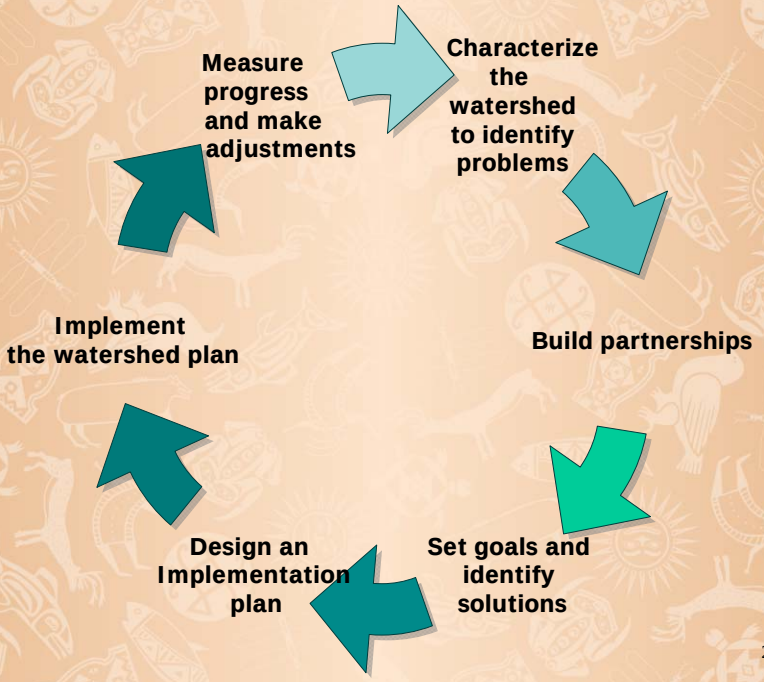

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Step 5: Implement the Watershed Plan

- Do not do all recommended BMPs implementation for multiple sites at same time.
- Choose a priority area of concern and focus on it with available resources and technical assistance.

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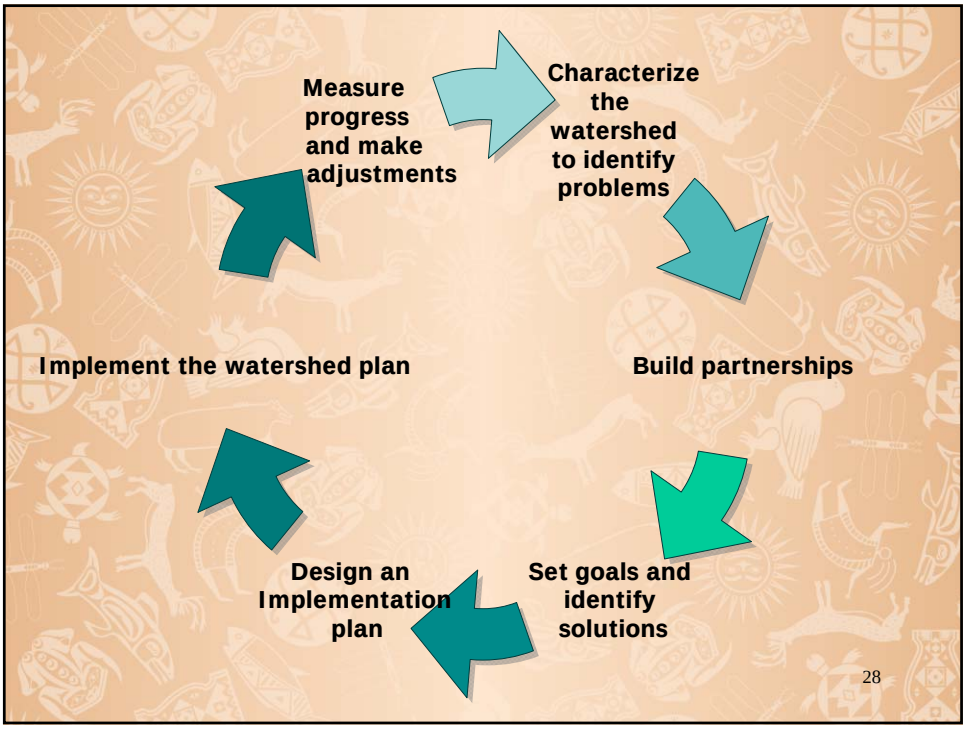

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Step 6: Measure Progress and Make Adjustments

- How will we measure progress toward meeting those goals?
  - Identify interim measurable milestones for water quality improvement and/or implementation of Management Measures
  - Identify evaluation framework and monitoring plan

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Monitoring Plan: Post-project monitoring

- Use CWA 106 funds to conduct post-project monitoring
- Update the QAPP, if necessary
- Any data trends?
  - Is water quality improving? If so, its working!
  - No change? Reassess BMPs effectiveness; try something else...

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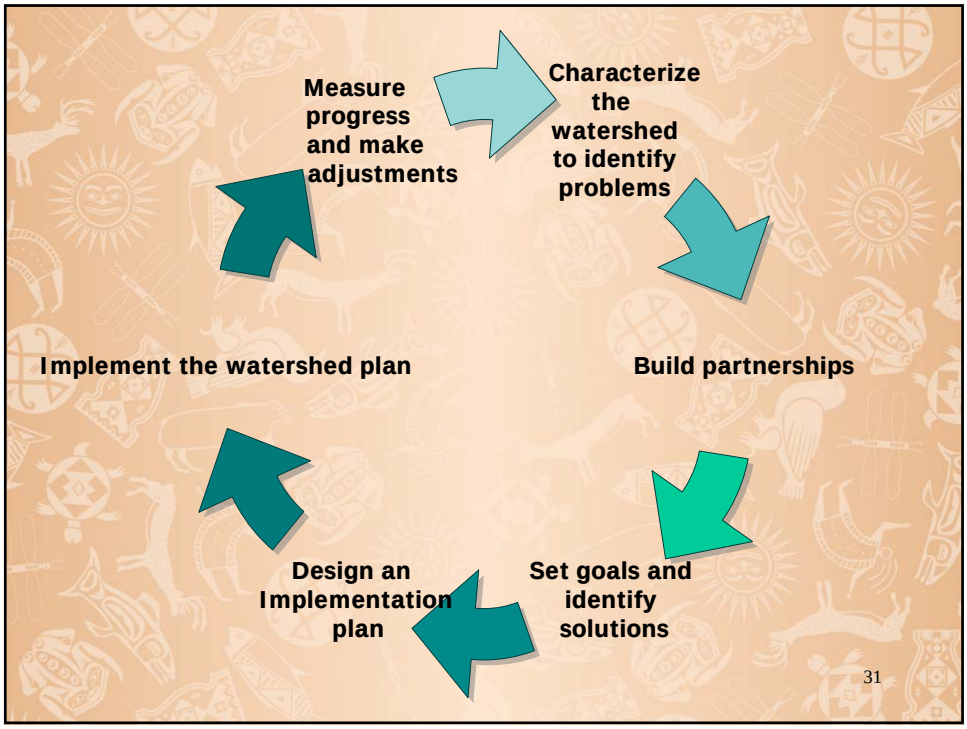

Watershed-Based Plan

- The six steps of watershed-based planning include the nine required elements of a watershed-based plan.
- The nine required elements of a watershed-based plan are found in the appendix section of the "Guidelines for Awarding Clean Water Act Section 319 Base Grants to Indian Tribes and Request for Proposals from Indian Tribes for Competitive Grants Under Clean Water Act Section 319 in FY2007" (CFDA 66.460 – Nonpoint Source Implementation Grants) and annual Request for Proposals in subsequent years.

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EPA's Nine Elements of a Watershed-Based Plan

(1) Identify causes and sources of pollution
(2) Describe management measures and targeted critical areas
(3) Estimate of water quality-based goals expected to be achieved
(4) Estimate technical and financial assistance needed
(5) Develop an education component
(6) Develop a reasonably expeditious project schedule
(7) Describe interim, measurable milestones
(8) Identify indicators to measure progress
(9) Develop a monitoring component

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If you cover all six steps of watershed planning, this means you also addressed all nine required elements of a watershed-based plan.

EPA's Review and Certification Process of Watershed-Based Plans

Review and Certification Process is done by your EPA Regional Office

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EPA Region 9 Review Process

- Your Project Officer will use a checklist to ensure all 9 required elements are contained within the Watershed-Based Plan.
- If the review determines all 9 elements of a Watershed-Based Plan are included, it can be certified.

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Certification of a Watershed-Based Plan

Consists of a statement from Region 9 that the Watershed-Based Plan has been reviewed and certified that it includes the 9 Elements per the Tribal NPS Guidelines.

Your Project Officer will send the certification statement to you via email or regular mail.

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